

DISCL-11MER
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DN:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CK:																
DW:																
CC:																

GENERAL NOTES:

- Sign Supports detailed on this sheet have been crash tested and are approved breakaway systems. TxDOT acceptance of these breakaway systems does not cover the structural features of the sign support systems.
- Sign support systems approved by FHWA may be used as approved fixed sign supports, as long as they meet TxDOT minimum sign height requirements. The contractor shall provide documentation from FHWA approving sign support systems not shown on this sheet.
- Sign support systems listed on this sheet may be suitable for only certain soil types. The contractor is responsible for selecting appropriate sign support systems for soil conditions on each project.
- Barricades shall NOT be used as sign supports.

WORK ZONE SIGNS

GENERAL

Standard signs shall be used as required by the BC Standard sheets, the plans, or as directed by the Engineer to regulate, warn, and guide traffic. All sign usage and erection shall be in strict accordance with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" (TMUTCD). The Contractor shall maintain each sign as directed by the Engineer.

The Contractor may use either the sign designs shown on the BC Standard Sheets, or those sign designs shown in the "Standard Highway Sign Designs for Texas" (SHSD). All work zone signs provided for in the TMUTCD but not detailed in the plans may be used when directed by the Engineer.

SIZE OF SIGNS

On secondary roads or city streets where speeds are low, smaller size construction warning signs may be used with the written approval of the Engineer and if the sign size is in accordance with the "Typical Construction Warning Sign Size and Spacing Chart" shown on page 6C-11 of the TMUTCD, Part VI.

SPLICES

All wooden sign panels fabricated from 2 or more pieces shall have one or more plywood cleats, 1/2 inch thick by 6 inches wide, fastened to the back of the sign and extending fully across the sign.

Wood Sign posts shall not be spliced.

REFLECTIVE SHEETING

Reflectorized signs shall be constructed of retroreflective sheeting meeting the color and reflectivity requirements of TxDOT Material Specification DMS 8300 or DMS 8310. Day only is defined as a device that is used only during daylight hours.

Type A, B or C sheeting may be used for all day only applications. Type A sheeting should be used for all white background regulatory signs. Type C sheeting shall be used for all other applications.

The above applications of sheeting grades to different type signs will apply unless otherwise specified in the plans.

TYPE A - Engineer Grade, TYPE B - Super Engineer Grade, TYPE C - High Specific Intensity

SIGN LETTERS

All sign lettering shall be clear, open rounded type capital letters as approved by and as published by the Federal Highway Administration (FHWA). Signs and lettering shall be of first class workmanship equivalent to that of the Department standard signs.

WORK DURATION TERMINOLOGY-(as defined by the "Texas Manual on Uniform Traffic Control Devices" Part VI)

- Long-term Stationary - occupies a location 3 or more days;
- Intermediate-term Stationary - occupies a location from overnight to 3 days;
- Short-term Stationary - daylight work that occupies a location from 1 to 12 hours;
- Short Duration - occupies a location up to 1 hour.

SUPPORTS AND MOUNTING HEIGHT

The bottom of Long-term / Intermediate-term signs shall be at least 7 feet above the paved surface. The bottom of any supplementary plaques shall be at least 6 feet above the paved surface.

The bottom of Short-term / Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground. Long-term / Intermediate-term Signs may be used in lieu of Short-term / Short Duration signing. Short-term / Short Duration signs shall be used only during daylight and removed at the end of the workday.

Regulatory signs shall be mounted at least 7 feet above the paved surface regardless of work duration.

Wood sign supports shall be painted white.

SIGN SUPPORT WEIGHTS

Where sign supports require the use of weights to keep from turning over, the use of some type of sandbag is recommended. The use of pieces of rock, concrete, iron, steel or other solid objects will not be permitted.

Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.

REMOVING OR COVERING

When sign messages may be confusing or no longer apply, the signs shall be removed or completely covered. When signs are covered the material used shall be opaque, such as heavy mil black plastic. Burlap shall not be used to cover signs. Signs shall be removed upon completion of the work.

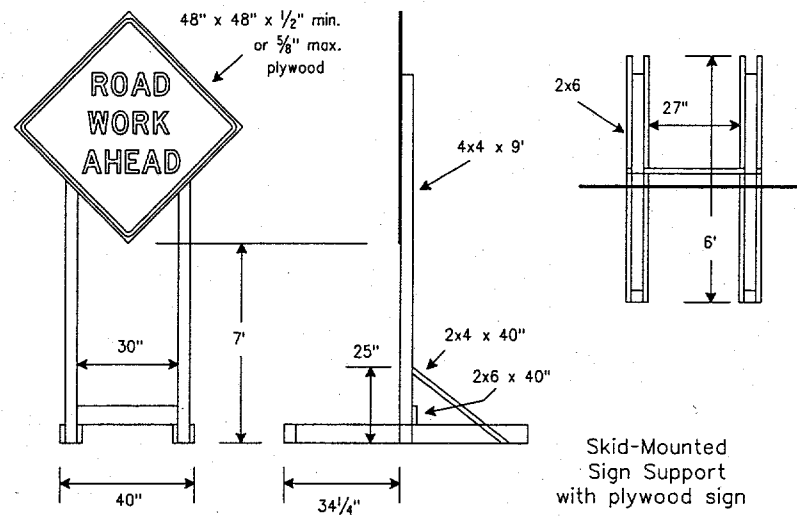
Duct tape or other adhesive material shall not be affixed to sign face.

Only pre-qualified products shall be used. A list of compliant products and their sources may be obtained by writing or faxing:

Standards Engineer
 Traffic Operations Division - TE
 Texas Department of Transportation
 125 East 11th Street
 Austin, Texas 78701-2483
 Phone (512) 416-3120
 Fax (512) 416-3161
 E-mail TRF-STANDARD@mailgw.dot.state.tx.us

LONG/INTERMEDIATE TERM STATIONARY PORTABLE SIGN SUPPORTS

7 Foot Mounting Height
 (SKID MOUNTED)

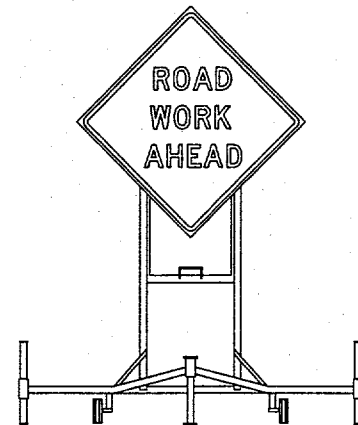


(POST TYPE)

Refer to acceptable products list.

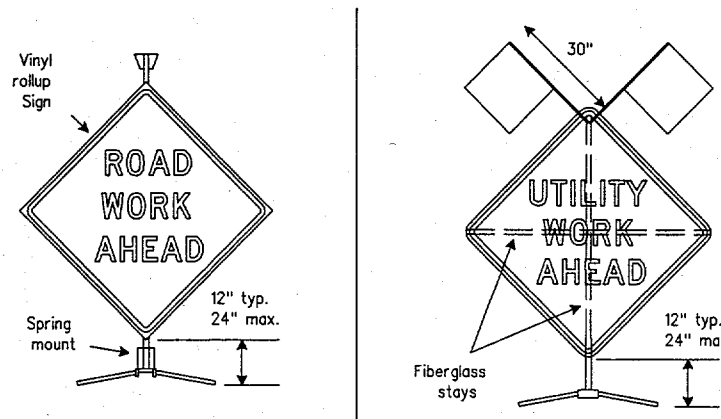
WHEELED PORTABLE SIGN SUPPORT

with plywood sign
 (Minimum thickness 1/2 inch)
 TxDOT Design

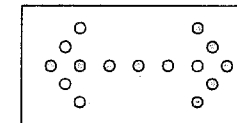


SHORT TERM STATIONARY/SHORT DURATION PORTABLE SIGN SUPPORTS

1 Foot Mounting Height



TYPICAL FLASHING ARROW PANEL



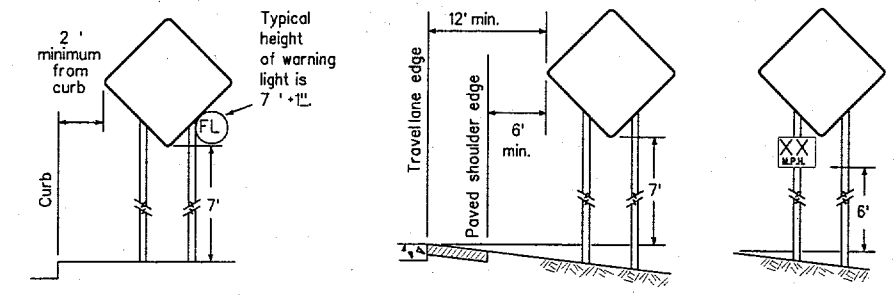
For traffic to move right.

ATTENTION: Arrow panels shall be equipped with automatic dimming devices.

- The Advance Warning Flashing Arrow Panel should be used for all lane closures (multilane roadway), or slow moving maintenance or construction activities on the traveled way. Arrow panels should not be used on two-lane roadways, detours, diversions or work on shoulders unless the CAUTION mode is used.
- Necessary signs, barricades or other traffic control devices should be used in conjunction with the Advance Warning Arrow Panel.
- The Arrow panel should have the capability of the following display selections: LEFT ARROW, RIGHT ARROW, LEFT and RIGHT ARROW and CAUTION. The CAUTION mode consists of four corner lamps flashing simultaneously.
- The Arrow panel shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 times per minute nor more than 40 flashes per minute. The Advance Warning Flashing Arrow Panel shall be mounted on a vehicle, trailer or other suitable support.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and 25 percent for the sequential chevron.
- The TxDOT standard is the flashing arrow, however, the sequential chevron may be used during daylight operations. The sequential arrow should NOT be used.

REQUIREMENTS	TYPE	MINIMUM SIZE	MIN. NUMBER OF PANEL LAMPS	MIN. VISIBILITY DISTANCE
	B	30" x 60"	13	3/4 mile
	C	48" x 96"	15	1 mile

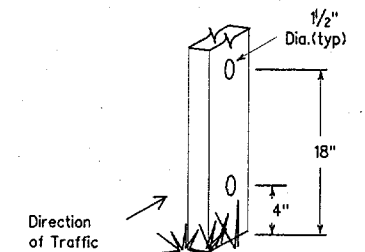
TYPICAL MINIMUM CLEARANCES FOR LONG/INTERMEDIATE TERM SIGNS



It is the intent of these plans to provide positive guidance to motorists throughout the project limits by the use of signs, pavement markings, delineation devices and/or channelizing devices. All traffic control devices shall conform with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways."

WOOD POST SYSTEM FOR FIXED SIGN SUPPORTS

Post Size	Maximum No. of Posts	Minimum Sq. feet of Sign Face	Minimum Soil Hole(s) Embedment	Drilled Required
4 x 4	1	12	36"	no
4 x 4	2	21	36"	no
4 x 6	1	21	36"	YES
4 x 6	2	36	36"	YES



10/99 Revision

Added 2 post - 4 x 6 sign support

STANDARD PLANS TEXAS DEPARTMENT OF TRANSPORTATION Traffic Operations Division

BARRICADE AND CONSTRUCTION STANDARDS

SIGN SUPPORTS **BC(4)-99**

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REVISED	STATE	FEDERAL	FEDERAL	CH	CB	REC NO.
10-99	6					27
	COUNTY	CONTRACT	SECTION	JOB	ROUTE	